**SPECIFICATIONS:**

**AC Input**
90-264Vac, 47-63Hz single phase.

**Input Current**
Maximum input current at minimum 120Vac, 60Hz with full rated output load is 0.6A.

**Hold-up Time**
15 mSec minimum from loss of AC input at full load, nominal line (115Vac).

**Output Power**
Normal continuous output power is 20W, 24W peak for 60 sec. maximum duration, 10% duty cycle. Factory set to begin power limiting at approximately 28W.

**Output Regulation**
Regulation from initial setpoint measured by changing load from 5% load to 50% load or 50% load to full load in either direction. Initial setpoint tolerance is measured at 50% load. A minimum load of 5% of the output current is required to maintain proper regulation.

**Overload Protection**
Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit.

**Output Noise**
0.5% RMS, 1% pk-pk, 20MHz bandwidth, differential mode. Measured with scope probe directly across output terminals of the power supply with load terminated with 0.1uF capacitor.

**Transient Response**
750µSec typical response time for return to within 0.5% of final value for a 50% load step within the regulation limits of minimum and maximum load, di/dt <0.2A/µSec. Maximum voltage deviation is 3.5%. Startup/ shutdown overshoot less than 2%.

**Reverse Voltage Protection**
All outputs protected against inadvertent application of reverse voltage up to 1 times rated current of the reversed output.

**Overvoltage Protection**
Built in with firing point set per ratings table. OVP firing reduces voltage to less than 50% of nominal voltage in 50mSec.

**Voltage Adjustment**
Factory set with fixed resistors to maximize reliability.

**Efficiency**
70% minimum for the 5.1V model at full rated load, nominal input voltage. Efficiency increases as output voltage increases.

**Turn-on Time**
Less than 1 second at 115Vac, 25ºC (inversely proportionate to input voltage and thermistor temperature).

**Input Protection**
Internal AC fuse provided on all units.

**Inrush Current**
Inrush is limited by internal thermistor. The inrush at 230Vac, averaged over the first AC half-cycle under cold start conditions will not exceed 32A.

**Temperature Coefficient**
0.03%/ºC typical on all outputs.

**Environmental**
Designed for 0 to 50ºC operation at full rated output power; derate output current and total output power by 2.5% per ºC above 50ºC. See Environmental and Packaging Specifications (p. 11) for additional information.

**EMI/EMC Compliance**
All models include built-in EMI filtering to meet the following emissions requirements:

<table>
<thead>
<tr>
<th>EMI SPECIFICATIONS</th>
<th>COMPLIANCE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducted Emissions</td>
<td>EN55022 Class B; FCC Class B</td>
</tr>
<tr>
<td>Static Discharge</td>
<td>EN61000-4-2, 6 kV contact, 8 kV air</td>
</tr>
<tr>
<td>RF Field Susceptibility</td>
<td>EN61000-4-3, 3 V/meter</td>
</tr>
<tr>
<td>Fast Transients/Bursts</td>
<td>EN61000-4-4, 2 kV, 5 kHz</td>
</tr>
<tr>
<td>Surge Susceptibility</td>
<td>EN61000-4-5, 1 kV diff., 2 kV com.</td>
</tr>
</tbody>
</table>

**Earth Leakage Current**
Leakage current measured in the Gnd wire connection:

<table>
<thead>
<tr>
<th>Normal Leakage</th>
<th>Fault Leakage</th>
<th>Test Voltage</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>200µA</td>
<td>370µA</td>
<td>132Vac/60Hz</td>
<td>UL1950</td>
</tr>
<tr>
<td>360µA</td>
<td>660µA</td>
<td>254Vac/50Hz</td>
<td>IEC950</td>
</tr>
</tbody>
</table>

**Safety**
Condor D.C. Power Supplies, Inc. declares under our sole responsibility that all GSC models are in conformity with the applicable requirements of EN60950 following the provisions of the Low Voltage Directive 73/23/EEC. All GSC models are approved to UL1950, CSA22.2 No. 234 Level 3, IEC950 and EN60950.

**FEATURES:**

- Industry's smallest 20W switcher
- Business-card size (2.0 x 3.5 x 0.71")
- Approved to UL1950, IEC950 and CSA22.2-234 Level 3, EN60950
- EMI FCC Class B, CISPR22B
- Overvoltage protection standard
- CE marked to LVD
### GSC20 MECHANICAL SPECIFICATIONS:

**INPUT:** J1 MOLEX P/N 22-43-8040

- PIN 1) AC LINE
- PIN 2) N/C
- PIN 3) N/C
- PIN 4) AC NEUTRAL

**GND:** 0.098 DIA. THRU HOLE

**OUTPUT:** J2 MOLEX P/N 22-43-8040

- PIN 1) OUTPUT #1
- PIN 2) OUTPUT #1
- PIN 3) COMMON
- PIN 4) COMMON

**MATING CONNECTOR MOLEX P/N**

- HOUSING 50-37-5043
- CONTACT 08-70-1040

**NOTE:** 3A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN

**WEIGHT:** 0.25 LB. [0.113 KG] MAX.

**TOLERANCES:**

- X.XX = ± 0.030 (0.76MM)
- X.XXX = ± 0.010 (0.25MM)

---

<table>
<thead>
<tr>
<th>Model</th>
<th>Output</th>
<th>Current</th>
<th>Load Regulation</th>
<th>Initial Setpoint Tolerance</th>
<th>OVP Setpoint</th>
<th>Ripple and Noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSC20-5</td>
<td>5.1V</td>
<td>3.8A</td>
<td>0.75%</td>
<td>2.5%</td>
<td>6.2 ± 0.6V</td>
<td>1.4%</td>
</tr>
<tr>
<td>GSC20-12</td>
<td>12V</td>
<td>1.7A</td>
<td>0.75%</td>
<td>2.5%</td>
<td>15.6 ± 1.1V</td>
<td>1%</td>
</tr>
<tr>
<td>GSC20-15</td>
<td>15V</td>
<td>1.4A</td>
<td>0.75%</td>
<td>2.5%</td>
<td>18.5 ± 1.5V</td>
<td>1%</td>
</tr>
<tr>
<td>GSC20-24</td>
<td>24V</td>
<td>0.85A</td>
<td>0.75%</td>
<td>2.5%</td>
<td>28 ± 2.5V</td>
<td>1%</td>
</tr>
<tr>
<td>GSC20-28</td>
<td>28V</td>
<td>0.7A</td>
<td>0.75%</td>
<td>2.5%</td>
<td>34 ± 2.8V</td>
<td>1%</td>
</tr>
</tbody>
</table>